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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,949	06/08/2004	Jeffrey E. Hemmett	BUR920040082US1	3948
23550	7590	03/09/2007	EXAMINER	
HOFFMAN WARNICK & D'ALESSANDRO, LLC			FREJD, RUSSELL WARREN	
75 STATE STREET			ART UNIT	PAPER NUMBER
14TH FLOOR				
ALBANY, NY 12207			2128	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	03/09/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/709,949	HEMMETT, JEFFREY E.
	<b>Examiner</b>	<b>Art Unit</b>
	Russell Frejd	2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 06 July 2004.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-30 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6.8.04, 7.6.04.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

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***Examination of Application #10/709,949***

1. Claims 1-30 of application 10/709,949, filed on 8-June-2004, are presented for examination.

***Claim Rejections under 35 U.S.C. § 112, 2nd Paragraph***

2. Claims 25 and 28-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. MPEP 2173.05(p) states that a single claim which claims both an apparatus and the method steps of using the apparatus is indefinite. The apparatus is interpreted here by the examiner as being equivalent to applicant's claimed system

***Claim Rejections under 35 U.S.C. § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

- 3.1 Claims 1-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The invention claims a method for simulating transient conditions in a circuit using a piecewise constant model.

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3.2 This claimed subject matter lacks a practical application of a judicial exception (law of nature, abstract idea, naturally occurring article/phenomenon) since it fails to produce a useful, concrete and tangible result.

Specifically, the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for evaluating an error criteria to determine a maximum allowable change in one of a current and a voltage, and simulating the transient conditions by implementing an adaptive step in the piecewise constant model according to the maximum allowable change. This produced result remains in the abstract and, thus, fails to achieve the required status of having real world value, because the claims for simulating transient conditions in a circuit using a piecewise constant model convert one set of numbers into another set of numbers, whereby the method does not manipulate appropriate subject matter, and thus cannot constitute a statutory process (MPEP Section 2106.02).

3.3 The Examiner also posits that the claims of the present invention are computer executable software code, or a program per se, consisting of a computer-useable medium having software instructions that implement the method for simulating transient conditions in a circuit using a piecewise constant model. For at least this reason, the software instructions of the present invention do not meet the criteria for a statutory process (MPEP Section 2106.01).

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\*\*>Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” In this context, “functional descriptive material” consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of “data structure” is “a physical or logical relationship among data elements, designed to support specific data manipulation functions.” The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) “Nonfunctional descriptive material” includes but is not limited to music, literary works, and a compilation or mere arrangement of data.

**3.4** In view of the aforementioned requirement, the Examiner respectfully contends that the claim language of claims 17-24 do not claim a practical application, that language claiming a computer program product comprising a computer useable medium having software for simulating transient conditions in a circuit using a piecewise constant model. The medium holding instructions is determined to recite data embodied on a computer-readable medium. However, the data does not impart functionality to either the data as claimed or to the computer. As such, the claimed invention recites non-functional descriptive material, *i.e.*, mere data. Non-functional descriptive material is merely carried on the medium, it is not structurally and functionally interrelated to the medium, and thereby does not manipulate, or execute, appropriate subject matter, and thus cannot constitute a statutory process.

***Allowed Claims***

**4.** Claims 1-30 are deemed allowable over the prior art of record at this time, pending resolution of any rejections noted above.

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***Response Guidelines***

5. A shortened statutory period for response to this action is set to expire **3 (three) months and 0 (zero) days** from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02, 710.02(b)).

**5.1 Any response to the Examiner in regard to this non-final action should be**

**directed to:** Russell Frejd, telephone number (571) 272-3779, Monday-Friday from 0530 to 1400 ET, **or** the examiner's supervisor, Kamini Shah, telephone number (571) 272-2279. Inquires of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist (571) 272-2100.

**mailed to:** Commissioner of Patents and Trademarks  
P.O. Box 1450, Alexandria, VA 22313-1450

**or faxed to:** (571) 273-8300

Hand-delivered responses should be brought to the Customer Service Window, Randolph Building, 401 Dulany Street, Alexandria, VA, 22314.

Date: 5-March-2007



**RUSSELL FREJD  
PRIMARY EXAMINER**